Ted Muelhaupt is the associate principal director of the Systems Analysis and Simulation Subdivision (SASS), Systems Engineering Division. SASS is the primary Aerospace organization responsible for the analysis of the system-level performance expected from satellite systems. It is a bicoastal organization that provides technical support to a variety of customers via large-scale mission architecture simulations, mission performance analysis, astrodynamics, constellation design, collision assessment, satellite navigation, and orbit determination. SASS develops models of systems, mathematical algorithms, and special-purpose software as necessary.

Muelhaupt also manages Aerospace’s Center for Orbital and Reentry Debris Studies (CORDS), and provides technical leadership of studies and analysis in the area of space debris, collision avoidance, reentry issues, space situational awareness, and space operational issues.

Muelhaupt is based in Chantilly, Virginia, and focuses on support to intelligence community customers. In recent years, Muelhaupt has led an expansion of Aerospace’s capabilities in support to realtime space operations. He created the Mission Operations and Analysis Department, which focuses on issues such as collision avoidance, debris analysis, and space operations, and leverages the work of other departments in SASS.

Muelhaupt’s technical specialties include orbit analysis, modeling and simulation, performance analysis, and software development. He has been a leading proponent of system visualization techniques, and a leader or sponsor of major software tool developments. Throughout his career, he has also been a corporate leader in information technology issues, especially as they are applied to the users.

Prior to joining Aerospace, Muelhaupt worked at Rockwell International Space Systems Group on space shuttle mission analysis and facilities planning, and at Honeywell’s Avionics Division on inertial guidance systems.

Muelhaupt joined Aerospace in 1980 as a member of the technical staff in the Control Analysis Department, where he worked in the areas of vehicle simulation and dynamics. He joined the Advanced Projects and Technology Department as a manager, concentrating on support to advanced programs in the areas of architecture and system simulations. In 1991, Muelhaupt transferred to the Advanced Plans Directorate, serving as the Aerospace liaison at an operations site. In 1993, he joined the Northern Virginia Office and subsequently helped form the Reconnaissance Systems Division. In 1996, he took the position of director over what is currently called the Performance Modeling and Analysis Department. In 2007, he took his current position within SASS.

**Educational Background and Affiliations**

Muelhaupt obtained his B.S. in aerospace engineering in 1976 and an M.S. in mechanics in 1978 from the University of Minnesota. He is an Associate Fellow of the American Institute of Aeronautics, and a member of the American Astronautical Society.

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